Amendments to the Claims

Please amend the claims as follows. This version will replace all prior versions of the claims.

1. (Currently amended) A method of treating HIV-1 infection in a patient, ~~by~~ comprising administering to a patient in need thereof a compound that selectively inhibits processing of the viral Gag p25 protein (CA-SP1) to p24 (CA)~~, but has no significant effect on other Gag processing steps~~.

2. (Currently amended) The method of claim 1 wherein said HIV-1 infection is characterized by HIV-1 infected cells which are capable of releasing HIV-1 virions and wherein said ~~inhibition~~ compound does not significantly reduce the quantity of virions released from treated infected cells ~~and/~~or has no significant effect on the amount of RNA incorporation into the released virions.

3. (Currently amended) The method of claim 1, wherein said HIV-1 infection is characterized by HIV-1 infected cells which are capable of releasing HIV-1 virions and wherein ~~the~~ said compound inhibits ~~the~~ maturation of virions released from ~~treated~~ the infected cells.

4. (Currently amended) The method of claim 1, wherein said HIV-1 infection is characterized by HIV-1 infected cells which are capable of releasing HIV-1 virions, wherein each virion comprises a viral membrane, and wherein a preponderance of virions released from the ~~treated~~ infected cells exhibit spherical, electron-dense cores that are acentric with respect to the viral particle, possess crescent-shaped electron-dense layers lying just inside the viral membrane, and have reduced or no infectivity.

5. (Currently amended) The method of claim 1, wherein the viral p25 protein comprises a CA-SP1 cleavage site, and wherein ~~the~~ said compound inhibits the interaction of HIV protease with the CA-SP1 cleavage site~~, which results in the inhibition of the processing of the viral Gag p25 protein (CA-SP1) to p24 (CA), but has no significant effect on other Gag processing steps~~.

6. (Currently amended) The method of claim 1, wherein said compound ~~binds to~~ interacts with the viral Gag protein ~~such that interaction of HIV protease with CA-SP1 is inhibited~~.

7. (Currently amended) The method of claim 6, wherein said compound binds near to or at the site of cleavage of the viral Gag p25 protein (CA-SP1) to p24 (CA)~~, thereby inhibiting the interaction of HIV protease with the CA-SP1 cleavage site and resulting in the inhibition of processing of p25 to p24~~.

8. (Original) The method of claim 1, wherein the HIV infecting said cells does not respond to other HIV therapies.

9. (Original) The method of claim 1, wherein said patient is administered said compound in combination with at least one anti-viral agent.

10. (Currently amended) The method of claim 9, wherein said at least one anti-viral agent is selected from the group consisting of zidovudine, lamivudine, didanosine, zalcitabine, stavudine, abacavir, nevirapine, delavirdine, efavirenz, saquinavir, ritonavir, indinavir, nelfinavir, amprenavir, adefovir, atazanavir, fosamprenavir, hydroxyurea, AL-721, ampligen, butylated hydroxytoluene;

polymannoacetate, castanospermine; contracan; creme pharmatex, CS-87, penciclovir, famciclovir, acyclovir, cytofovir, ganciclovir, dextran sulfate, D-penicillamine trisodium phosphonoformate, fusidic acid, HPA-23, eflornithine, nonoxynol, pentamidine isethionate, peptide T, phenytoin, isoniazid, ribavirin, rifabutin, ansamycin, trimetrexate, SK-818, suramin, UA001, enfuvirtide, gp41-derived peptides, antibodies to CD4, soluble CD4, CD4-containing molecules, CD4-IgG2, and combinations thereof.

11. (Cancelled)

12. (Currently amended) The method of claim 1, wherein said compound is [[a]] dimethylsuccinyl betulinic acid, [[or]] dimethylsuccinyl betulin, or a derivative of dimethylsuccinyl betulinic acid or dimethylsuccinyl betulin .

13. (Currently amended) The method of claim [[12]] 1, wherein said compound is selected from the group consisting of 3-O-(3',3'-dimethylsuccinyl) betulinic acid, 3-O-(3',3'-dimethylsuccinyl) betulin, 3-O-(3',3'-dimethylglutaryl) betulin, 3-O-(3',3'-dimethylsuccinyl) dihydrobetulinic acid, 3-O-(3',3'-dimethylglutaryl) betulinic acid, (3',3'-dimethylglutaryl) dihydrobetulinic acid, 3-O-diglycolyl-betulinic acid, 3-O-diglycolyl-dihydrobetulinic acid, and combinations thereof.

Claims 14-81 (Cancelled)

82. (New) The method of claim 1, wherein said compound inhibits interaction of HIV protease with the viral Gag p25 protein.

83. (New) The method of claim 1, wherein said HIV-1 infection is characterized by HIV-1 infected cells which are capable of releasing HIV-1 virions, and

wherein each virion comprises a viral membrane, and wherein a preponderance of virions released from the infected cells exhibit spherical, electron-dense cores that are acentric with respect to the virion.

84. (New) The method of claim 1, wherein said HIV-1 infection is characterized by HIV-1 infected cells which are capable of releasing HIV-1 virions, and wherein each virion comprises a viral membrane, and wherein a preponderance of virions released from the infected cells possess crescent-shaped electron-dense layers lying just inside the viral membrane.